



# ENFIA Interpreter

August 4, 2023 Vol. 13

## A Message from the President

By Stan Trevena

My wife and I drove up to Carson Pass back in April to see how much snow was at the station. We were shocked to find the station completely buried. Looking back on that day now, I realize that I had absolutely no idea of the impact that snow would have on this season.



The first challenge was in planning a date that we could simply open up the cabin and the station. There are so many things that have to come

together to allow us to open these facilities. We had a group of docents committed to these tasks.



The snow did not melt as quickly as we had thought it would. Dates shifted and the docents waited. Several attempts were made to gain access to these locations, but the challenges continued. As everyone now knows, we opened both facilities a full month later than normal. We had a new person handling scheduling this season. She did a great job in setting up the online system and in reaching out to all of the docents prior to the start of the season. We received

some great feedback during these calls. The unfortunate thing was having to cancel and reschedule docent shifts as the opening dates dragged out longer than anyone expected. Our docents did not complain and rolled with the changes.



Once opened, we continued to have challenges. We had to deploy backup power due to damage to the solar power at the station. Because the solar panels were damaged, docents have been trading off a few times a week to drive up and charge the solar battery with a generator to keep the station functioning. The Forest Service has been working with ENFIA to restore and upgrade the building solar system this season. The backup battery has added extra tasks when opening and closing, and our docents have adjusted and some have even volunteered to help with the charging. We are still not back to "normal" yet this season. I could fill this newsletter with all the challenges that still persist to this day. That would be redundant, as every docent who has worked a shift at the station is fully aware of the

challenges that remain. I recognize and applaud our docents for their patience and perseverance. I am so thankful for the flexibility and positive attitudes of our docents as we work through these challenges. And I would be remiss if I did not also recognize the assistance that the



Forest Service has offered ENFIA this season. We still have two months left in the season. We are working hard to get back to normal. One thing that should be anything but normal this season is the coming wildflower bloom. I suspect by the end of August (a moving target) we should be seeing one of the more spectacular



wildflower blooms in recent memory. The anticipation and excitement is



obvious from the increased phone calls coming in daily asking for updated estimates of when this will happen. This may just be the silver lining to all of the challenges resulting from this year's record snowfall. It appears that there is no challenge our docents can't handle. Together as a group we can get through anything. Speaking of challenges, we are anticipating several openings with ENFIA next season. One for certain is for a board position. Several others will be in support roles. If you've ever wanted to get more involved with ENFIA, this may be that opportunity. If you are interested in finding out more, send me an email at [president@enfia.org](mailto:president@enfia.org) for more details. I know that we have many docents that could really contribute to the success of the organization by stepping up for one of these positions.

***The following article is borrowed and not original to ENFIA authors:***

## **6 Reasons to Pack Out Your Dirty Toilet Paper**

By Mandy "Veggie" Redpath and  
reshared by Ben Kirkland

Let's face it...it always sucks to arrive at a trailhead and see little bits of white and brown for the first quarter mile.

As outdoor spaces get a usage boost, they become a casualty of toilet paper. These man-made flowers crop up more and more in high-use areas and it's not ok.

Don't believe me? Read on for 6 reasons why you should pack out your dirty toilet paper.

### 1. No One Likes TP Flowers

The toilet paper problem affects all of us. Day hikers, weekend warriors, section hikers, and thru-hikers have all seen areas trashed with excess dirty toilet paper. It's often around trailheads, popular viewpoints, or common campsites where there should be a privy and there isn't.

There is no reality where someone likes this. You can only turn a blind eye for so long.

However, how can we all complain if we don't all pack out our toilet paper? If you bury toilet paper, you are part of the problem. It's important to recognize this and *be a part of the solution instead* of perpetuating what we all dislike.

Therefore, we should all band together and pack out our dirty TP.



## 2. Realistically, Your Toilet Paper DOESN'T Decompose Fast Enough

If you are hiking in the overall wet Appalachian Mountains, you could reasonably assume your toilet paper would decompose in 1-3 years, according to this article by [Backpacker Magazine](#).

HOWEVER, that is assuming no animals dig it up in the meantime. It's possible that one will in 1-3 years, especially if it's not buried deep enough.

That's also not including the increased number of poos happening from the increased number of hikers.

If you're hiking in areas without ideal decomposition rates, that toilet paper will live in the ground for several more years. Alpine environments above the treeline will decompose *very slowly*. The same goes for desert environments.

## 3. Even "Properly Buried" TP Could Be Dug Up by Animals

It's a common misconception that if you bury your toilet paper along with your poop 6"-8" deep that it will stay buried.

Sometimes it might, but more often it won't.

This especially affects popular areas like trailheads and viewpoints. Everyone starts at a trailhead and hikes to a viewpoint. Thus, people spend more time in those two locations than in the space in between them.

While people get situated in the trailhead parking lot, they eat snacks, drop crumbs, and go behind in the nearby bush. The same thing happens at viewpoints: hikers sit down, eat, and go behind the bush.

That's why those areas in particular have BOTH the most toilet paper and the most critters. I'm looking at all of you who feed the cute chipmunk (which you shouldn't).

Even if you bury that toilet paper 6"-8" deep, that chipmunk or another motivated critter can and will easily dig that up. Not only chipmunks will unbury your TP for an extra snack. Marmots, badgers, bears, shrews,



mice, and many others can smell your poop and its food smells. If you've ever seen a bear flip a boulder or dead log to find a grub, you'll know that 6" of dirt won't stop it.

Protect wildlife by packing out your TP... they don't need to eat it buried or on the surface.



#### 4. Your Pee has Salt that Animals Want

Think back to the last very hot day where you went on a hike. You probably had some type of electrolytes: Gatorade, propel, liquid IV, etc.

Those things don't happen naturally often. Mountain goats and bighorn sheep climb to great heights for salt deposits on cliffsides. Ranchers use salt licks to get their cows to inhabit certain areas more frequently. Less skilled hunters use salt licks to habituate deer to an area near a blind they've set up to shoot them easily.

But, you pee out salt every pee and animals will seek that out. It's like

when critters eat your cork hiking pole handles when you leave them out at night. They are actually trying to eat the salt from your sweat that has soaked into the cork.

Point being: the salt in your pee attracts animals. That is part of why some poos get unburied AND why ladies who pee and leave surface toilet paper are part of the problem. Unburied toilet paper with urine attracts animals for the salt and they don't need to eat our toilet paper.

#### 5. There are Reusable Options!

So, you want to be part of the solution? Why use disposable when you can go reusable?

Let's talk about reusable options to decrease the toilet paper use before it even gets outside. Just like most of us have reusable water bottle bottles, there are reusable bathroom cleaning options.

First, a kula cloth or a wander wipe offer fantastic alternatives to hikers with vaginas. They're both anti-microbial and washable! In my experience, they do need to be rinsed at least every 3 days. I use filtered water to rinse mine away from a stream in between towns.

This will drastically reduce the bulk surface toilet paper. I get it, ladies...it's important to wipe after you pee. Just make it reusable and washable. And before you ask, no it doesn't smell.

Second, try a bidet if you're so inclined and are hiking in areas with lots of water. This option, when done correctly, can drastically reduce or eliminate toilet paper and wet wipes from your system. Depending on how much your TP kit usually weighs, it can also decrease weight!

Lastly, if you still like your Charmin and wet wipes, simply pack it out. I've been packing out toilet paper for a long time and it hardly adds any extra weight. And no, it doesn't smell.

I like to make a "poo kit" up in advance. I start by rolling my toilet paper into rolls where I divide a normal roll of TP into 4 smaller rolls. I bring 2 smaller rolls per section in a sandwich ziploc. This provides extra in case of emergencies. Next, I bring about 15-20 wet wipes in a second sandwich ziplock. I add a small hand sanitizer bottle. For the dirty toilet paper, I put one sandwich ziplock inside a second one to double bag it. When we get to town, we can throw out the inner bag and the outer bag becomes the next section's inner bag.

Finally, all that goes into a USPS Tyvek mailing envelope so you can't see what's in it.



6. Leave Outdoor Spaces the Same or Better than you Found Them

## The Story in the Granite

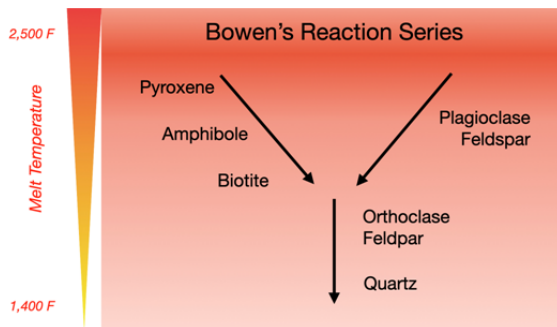
By Lester Lubetkin

In the past, I have tried not to let my articles get too technical - but I am going to break that streak, because knowing about the **Bowen's Reaction Series** lets you find some amazing stories in many of the rocks found across much of the Eldorado Forest. The white and black rocks with mineral grains large enough to see with the naked eye are *plutonic* rocks, meaning they formed deep underground from molten rock (called *magma*). As the molten rock cools, mineral crystals grow, and generally, the slower the molten rock cools, the larger the crystals. As the mineral grains form, they start to interlock



with adjacent grains, until a solid rock is formed.

The Bowen's Reaction Series describes the order in which various minerals form, based on the temperature and pressure within the magma chamber. At temperatures well over 1,000° - 2,000° F, rocks will melt. The Bowen's Reaction Series lets us read stories when we are looking at the coarse-grained rocks like granite and granodiorite. Volcanic rocks cool too quickly to be able to easily pick out the individual mineral grains, and the metamorphic and sedimentary rocks don't form from a molten magma. So, we want to limit our use of this tool to the plutonic rocks.



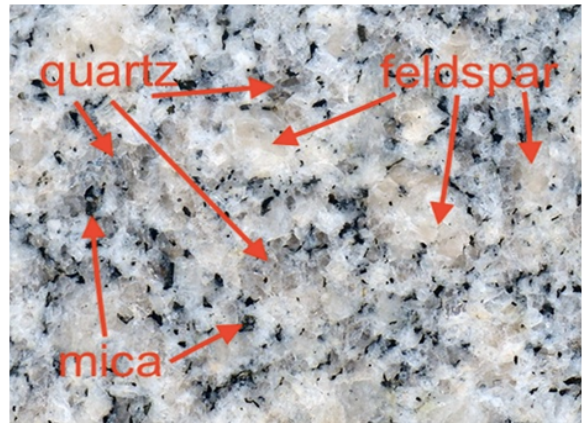
In the plutonic rocks found in the Eldorado Forest, as the molten rock cools, the first minerals to crystallize are the black and dark colored minerals (**pyroxenes** and **amphiboles**). When you look at a granitic rock, these minerals are the opaque black grains - sometimes you can even see the crystal form. As the magma cools further, then **biotite**



<http://geologylearn.blogspot.com>

starts to form. Biotite is also a black mineral, but is distinctive, in that it forms thin plates that get stacked together in what are referred to as "books".

At the same time as these black minerals are crystallizing, there is a series of lighter colored minerals forming, known as **feldspar**.



<https://geoetc.com>

When you are looking at granite rocks, such as near Wrights Lake, in the area around Loon Lake or over near Caples Lake, feldspar is the commonly creamy-white to pinkish mineral.

As these different minerals crystallize, the remaining molten mix becomes depleted in those elements that make up the earlier-forming minerals, such as iron (Fe), magnesium (Mg) and calcium (Ca). And the mix becomes more concentrated in other elements, such as silica (Si) and sodium (Na). So, not surprisingly, one of the last minerals to crystallize is **quartz** (which is silica dioxide). And, this also helps to explain why we see quartz veins in the granitic rocks and surrounding metamorphic rocks. Late in the life of the magma chamber, after other crystals have formed, the remaining fluid is quartz rich - this liquid gets squeezed out under pressure, creating quartz veins.



<https://www.sciencephoto.com>

When you are looking at some of the granitic rocks around the Forest, you may find some that have certain mineral grains that are much larger than other minerals (such as in the vicinity of Caples Lake, Echo Lake and portions of Desolation Wilderness). For instance, some of

the cream to pink feldspar crystals may be much larger than the black mineral grains and quartz grains. This may be the result of the magma chamber cooling at different rates - so that as the black minerals are crystallizing, the magma is cooling relatively quickly, in comparison to the rate of cooling as the feldspar minerals are forming. Thus, the magma is within the temperature range for feldspar crystals to form for a longer period, allowing the crystals or mineral grains to become larger. (However, the difference in size may also be the result of the chemical composition of the magma or other factors).

The individual grains within the granitic rocks of the Eldorado Forest, and the relationships between the mineral grains tell the story of how the rock was formed over the thousands to millions of years that it takes for the magma chamber to fully crystallize. And Bowen's Reaction Series is one of the ways to "read the story in the rocks". So be on the lookout for a good story as you explore the Forest this Summer.



# It Takes a Team to Keep a Trail

By Lester Lubetkin

As you are out hiking on trails across the Eldorado Forest this summer, take a moment to appreciate the efforts of the trail crews in making and maintaining the trails! We often don't think much about what it takes to make a pleasant trail, but actually there is a lot of initial planning and technical construction required. The trail needs to get you from your starting point to your destination, but it also needs to be safe, avoid causing erosion and damage to sensitive



habitats (like meadows), avoid channelizing water flow or diverting small streams, all while meeting the needs of the different users of the trail, be it hikers, equestrians, mountain bikes, motorcycles, and more.

Hiking a trail, probably the first thing you notice is the trail surface (or

*tread*) and the steepness (*gradient*). The Forest Service actually has standards for trail gradients, so that the trail isn't too steep for too long of a distance. And, depending on the type of user on the trail (horses, hikers, wheelchairs), there are standards for the width of the trail and smoothness of the surface. The Summer Harvest Trail at Gerle Reservoir is one of the Forest's trails designed to be accessible to wheelchairs and other users, while many of the more remote trails in Desolation Wilderness may have larger rocks or obstacles in the trail tread.

Going along the trail, you may notice a series of rocks across the trail set at an angle.



This is a *waterbar* and was likely placed very carefully by a trail crew to serve as a way to divert water off of the trail. Without waterbars, rainwater, snowmelt or other water runoff will flow down the trail, eroding and gullyng the trail. As a hiker, you can avoid knocking over

these rocks and if you see that the outlet of the waterbar is plugged, use your heel to push the dirt and debris out so that water can flow through. In some places, there will just be a dip in the trail to get water off of the trail, rather than rocks.

Now along the trail, you come to a **switchback**. These actually are amazingly technical to lay out and build. Often on the downslope side of the trail, you will notice a rock wall that has been placed to build up the trail tread. And the hillside can't be too steep or there won't be enough room to build the switchback.

Drainage control in these areas is very important! That is one of the reasons that cutting switchbacks can be so damaging.

Meadow crossings and stream crossings are another place where you can see the beautiful handiwork of the trail crew. If the trail crosses a meadow, notice if the trail surface seems to be elevated a bit above the meadow surface. The trail crew placed rocks along the side of the trail and then often brought in smaller rocks or crushed rock to create a stable trail that drains and doesn't damage the fragile meadow. Or maybe they have used logs to create

what is known as a **turnpike**.



And of course, trail crews seasonally need to **log out** trails to remove trees that have fallen across the trail or stabilize areas that have been damaged by winter storms. If you have hiked a trail before the trail crew has had a chance to log out the trail, you well know how important this work is and how big a job it can be.

Creating the trails and keeping them in usable condition is a big job. Forest and District trail crews are one way that these trails are maintained, but there are a variety of volunteer groups that work on the Forest's trails as well. Consider joining a volunteer trail crew some time - it is a great way to give back to the Forest and helps you to appreciate even more the value of trails in the Forest.



## **Retail and Scheduling Positions open for next year**

Keli Gywn has done an amazing job as the Carson Pass Retail Coordinator and Scheduling Manager. But the time has come to pass the baton on to someone else. Keli has enjoyed serving ENFIA as your Scheduling Manager this season and as Retail Coordinator since February 2020. However, this will be her last season to fill those positions. She will be switching to docent-only status at the end of the 2023 season. If you're interested in either of the positions, you can reach out to President Stan Trevena ([president@enfia.org](mailto:president@enfia.org)). If you'd like to know more about what's involved in either position, Keli is happy to answer questions.

## **Become a Newsletter Contributor**

When working at Carson Pass I often get a chance to talk with other docents about the fabulous adventures they've been on. Please consider submitting an article for the ENFIA Newsletter. Our next newsletter comes out in November, which gives you plenty of time to enjoy our wonderful forest

and write about it. All articles can be submitted to Robyn Sandperl at

[rsandperl@gmail.com](mailto:rsandperl@gmail.com)

